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Department of Natural Resources

RECOMMENDED STRATEGY FOR MERCURY REDUCTIONS TO THE ATMOSPHERE IN WISCONSIN

August 1999

INTRODUCTION

The Department of Natural Resources issued a draft White Paper on a mercury reduction strategy in January of 1999. The purpose of the paper was to stimulate meaningful discussion and movement toward real reductions in mercury air emissions in Wisconsin and nationally. The Department convened a stakeholders group of representatives from government, industry and environmental organizations to discuss the White Paper. The Mercury Stakeholders Group met four times during the winter and spring of 1999. The Group heard presentations from Department staff about Wisconsin mercury programs, from EPA and Minnesota Pollution Control Agency about other state, regional and national initiatives, and from stakeholder members about actions they have taken. After considerable stakeholder discussion regarding the concepts and recommendations made in the White Paper, the Department has revised its proposed strategy for mercury reductions to the atmosphere. This paper presents the Department's recommendations for a Mercury Reduction Strategy.

ISSUE

Wisconsin has always had a strong tradition of providing a healthy and clean environment where its citizens can pursue a healthy and unrestricted enjoyment of its natural resources. Since the 1970's, the Department of Natural Resources has been monitoring mercury in the environment including the sampling of fish tissue for mercury. The Department has sampled over 1000 water bodies and has found elevated levels of mercury in fish in one out of every three water bodies tested. The high levels of mercury pose plausible health risks to people and wildlife that consume fish. As a result, health advisories have been issued restricting the human consumption of fish from 321 water bodies.

Within the borders of the State, there are nearly 15,000 lakes along with thousands of miles of rivers and streams. Up to now, the Department has sampled approximately 40 to 45 percent of the major water bodies in the state. As new lakes and rivers are sampled each year, the number of water bodies that will be included on the State's fish consumption advisory list will most likely increase in the future. Because of the increasing number of water bodies that are projected to be included on the advisory list, it is conceivable that the State may consider a statewide fish consumption advisory. So far, due to the fact that mercury levels in fish have not decreased over the past two decades, no water bodies have ever been removed from the State's advisory list.

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Elevated mercury levels in fish have restricted the pursuit of traditional food gathering practices of certain ethnic groups. Wisconsin Indian Tribes, including the Great Lakes Indian Fish and Wildlife Commission, have also conducted sampling for mercury levels in fish. Using somewhat stricter standards to protect tribal members because of their fish consumption habits, an additional 50 water bodies within the ceded territory have been listed by Indian Tribes as having a fish consumption advisory.

In addition to the potential health risks caused by elevated levels of mercury, there are also important economic consequences associated with a potential reduction of recreation and tourism activities. Fishing in Wisconsin is a tradition. Each year the Department sells approximately 1.25 million (0.25 million are non-resident) fishing licenses generating approximately \$20 million in revenue to the state. Adding to license sales is the significant revenue provided by sales of food, lodging, gasoline, and sporting equipment related to fishing as an activity. Thus, the continual and expanded listing of fish consumption advisories because of elevated mercury levels could cause a corresponding decrease in recreation and tourism. This would have a direct economic impact on the state.

Significant progress has been made in reducing the direct discharge of mercury to the waters by industrial and municipal sources. Much of the mercury now entering the waters of Wisconsin is the result of atmospheric deposition. Coal and oil contain significant amounts of naturally occurring mercury that is released to the air when these materials are combusted. Mercury is also released through medical and municipal waste incineration and wastewater sludge incineration and land spreading. A large source of atmospheric mercury in Wisconsin is chlor-alkali production (the manufacture of chlorine and caustic soda). (See Table 1)

The current state and federal standards for mercury control from air emissions are based on protecting the public from unacceptable mercury exposure due to direct inhalation of mercury. In the ambient air, mercury levels are not hazardous in Wisconsin. It is the cumulative amount of mercury deposited to the water bodies, its subsequent chemical transformation in that water body and its bioaccumulation in fish that are subsequently eaten that poses health risks. The air emission standards are not sufficient to reduce the atmospheric deposition and bioaccumulation of mercury to water bodies.

As required under Section 303(d) of the Clean Water Act, the Department identified and submitted to US EPA, a list of water bodies within the state that are currently not meeting water quality standards. Many of these water bodies (as determined from the fish advisory list) are being impaired by atmospheric deposition of mercury from sources on a local, regional and global scale. US EPA has established an 8-13 year time frame to address the listed water bodies with a plan to remove existing impairments through appropriate Total Maximum Daily Loads (TMDLs). To address the requirements of Section 303(d), the Department must work with US EPA to further analyze the atmospheric deposition loading from within (and outside) the state, and establish a statewide (regional) TMDL for water bodies impaired by air deposition sources.

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TABLE 1: ESTIMATED MERCURY AIR EMISSIONS IN WISCONSIN

	WI 1990	WI 1995
Incidental to Energy Production		
Coal (total)	(2,361)	(2,508)
electric utility coal	1,967	2,088
commercial/industrial coal	391	417
residential coal	3	3
Petroleum Sector (including refining & combustion of products)	580	509
Wood	13	10
Natural gas	0.24	0.3
Refuse Derived Fuel - Utility	11	9
Gasoline & Diesel - Mobile Sources	223	231
Tire Derived Fuel - Utility	6	12
Subtotal Incidental to Energy Production	3,188	3,268
% of total state emissions	40%	50%
Largely Resulting from the Purposeful Use of Mercury		
Latex Paint Volatilization	500	10
Municipal Solid Waste Combustion	1,041	176
On-site Household Waste Incineration	666	270
Medical Waste Combustion	363	601
Sewage Sludge Incineration	166	166
Fluorescent Lamp Breakage	107	107
Class IV Incinerators	55	0
Chlor-alkali Production	1,072	1,114
Battery Production	4	2
Electrical Apparatus & Instrument Manufacturing	37	37
Crematories	36	38
General Laboratory Use	56	42
Dental Preparation	56	28
Hazardous Waste Incineration	0	0
Landfill Volatilization	13	13
Recycling Mercury from Products within WI	4	35
Smelters that Recycle Cars & Appliances	69	69
Volatilization from Dissipative Use	2	2
Fungicide Volatilization	86	25
Volatilization from Spills & Land dumping	55	48
Volatilization during SW Collection & Processing	258	258
Volatilization: Land Application of Compost	2	1
Volatilization: Land Application of Sludge	126	126
Subtotal: Purposeful Use of Mercury	4,774	3,168
% of total state emissions	59%	48%
Emissions Incidental to other Activities		
Taconite Processing	0	0
Pulp & Paper Manufacturing	4	4
Soil Roasting	12	12
Lime Production	92	128
Subtotal: Emissions Incidental to other Activities	108	144
% of total state emissions	1%	2%
GRAND TOTAL =	8,069	6,580

Source: Bureau of Air Management, Wisconsin Department of Natural Resources

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Mercury has unique properties that make it persist in the environment. As an element, it cannot be broken down or eliminated. Rather, once deposited, it can be re-emitted back to the atmosphere to be re-deposited elsewhere. Adding to the complexity is the fact that mercury can be transported long distances in the atmosphere and can persist there for many years before being deposited. This has created a global reservoir of mercury. The amount of mercury falling on any one Wisconsin water body is comprised of contributions from the global reservoir, regional sources, local sources and from re-emissions, although the precise percentage from each source has not yet been determined. These properties of persistence and re-cycling mean that it will take a long time (approximately 15-20 years) before reductions in mercury emissions can be translated into significant improvements in mercury levels in fish. Continuing to emit mercury at current levels will compound the problem of reducing mercury at a future date.

In recent years, there has been considerable attention paid in the United States to reduce the use of mercury in products and to reduce air emissions beyond what is necessary to protect public health from inhalation. In 1997, the United States and Canada signed the Bi-National Toxics Strategy Agreement, which seeks to achieve a 50% reduction in the deliberate use of mercury and a 50% reduction in release of mercury to the ambient air by 2006. The certainty of achieving this goal is not known because the basis of most of the reductions is through voluntary agreements. This is however an important first step to reducing mercury emissions.

A number of states have moved ahead on their own with discussions and actions concerning mercury reductions. These are states with substantial aquatic resources at risk or where mercury deposition is predicted to be high. Michigan and Minnesota have active stakeholder forums discussing strategic issues regarding mercury reductions. Minnesota stakeholders have agreed to recommend that a 60% reduction goal from 1990 levels by the year 2000 and a 70% reduction goal from 1990 levels by the year 2005 be established by legislation. In the Northeast, the Conference of New England Governors and Eastern Canadian Premiers signed a plan in May 1998 which establishes a regional goal of reducing mercury emissions by 50% by the year 2003. The State of Maine enacted legislation limiting mercury emissions by any source to no more than 50 pounds by the year 2004.

Based on our scientific knowledge and current initiatives by other states, a prudent course of action is to begin to reduce mercury emissions in Wisconsin through our own actions and to seek national legislation to reduce the levels of mercury being transported into Wisconsin. At the same time, efforts to further advance the scientific understanding of the mercury cycle should proceed. Lack of absolute scientific certainty at this time should not be a reason to postpone measures to prevent further environmental degradation and the protection of public health.

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GUIDING PRINCIPLES OF REDUCTION RECOMMENDATIONS

Mercury is one of the few environmental contaminants that bioaccumulates in the environment. It does not become less toxic over time other than through dilution, and can be re-emitted because of its unique chemical properties. For these reasons, proposals have been put forward for the virtual elimination of all discharge of mercury into the environment through any and all media. Virtual elimination will take many years, if not decades, to accomplish. Reaching this goal will require a series of actions. This proposal, which is based on the following five guiding principles, is one of the steps toward attaining this goal.

1. The first guiding principle is that air emission reductions should be accomplished in the most cost-effective way possible. Toward this end, the reduction requirements should be phased in to help minimize cost. Sources should have maximum flexibility to meet the overall emission reduction goals. The cost of reducing mercury emissions will most likely differ for each individual source. Therefore, a system should be established which enables sources to select the least cost reduction approach from a system-wide perspective.
2. The second principle is that reductions must be real and result in reduced deposition of mercury to water bodies. Reduction proposals should be designed to prevent the unwanted transfer of mercury to another media where it may reenter the environment to be deposited in the water bodies.
3. The third principle is that the system should have a “check” phase built into it. The emission reduction goal should be re-assessed after a number of years and adjusted if deemed appropriate. To this end, air emission reductions should be monitored, the combined impact of state, regional and national reduction efforts on mercury levels in the water bodies should be measured and scientific and technology development advances should be evaluated.
4. The fourth principle is that society as a whole bears a responsibility to reduce the levels of mercury entering affected water bodies. Mercury is used in many household products and industrial applications and everyone benefits from the energy produced through the burning of fossil fuels. The benefits of reduced mercury levels in the environment will accrue to the general public. Consequently, some of the costs of achieving this goal should be borne by everyone. In particular, these should include the indirect costs of research, monitoring, and education and outreach to the public.
5. Lastly, the fifth principle is that the issue of long term storage of mercury needs to be addressed in any reduction of discharge recommendations. As progress is made toward virtual elimination, the demand for mercury used in household products and industrial applications will decline. At that time, the supply of mercury from recycled and virgin materials may exceed demand. A viable solution to this excess mercury must be found so that it does not reenter the environment.

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STRATEGY

1. Establish a mercury cap, trading, banking and offset program that would achieve a 20% reduction in air emissions by 2005, a 35% reduction by 2010 and a 50% reduction by 2015. Reassess the 35% and 50% reduction goals in 2005, taking into consideration new scientific and technology developments, including the regional Total Maximum Daily Load, and adjust the caps if appropriate.
2. Develop a statewide Total Maximum Daily Load for atmospheric deposition of mercury to Wisconsin water bodies.
3. Establish a Mercury Reduction Fund to carry out programs for reducing mercury from small sources, to develop and implement plans for the long-term storage or disposal of mercury, and to conduct research on mercury emissions, their transport and their effect on the environment.
4. Promote action at the regional and national levels to reduce the levels of mercury being transported into Wisconsin.

MERCURY CAP, TRADE, BANKING and OFFSET PROGRAM

Under the mercury cap program, total allowable emissions are capped at a specified level, equivalent to 80% of the baseline emissions in 2005, 65% in 2010 and 50% of baseline emissions in 2015. Each source is allocated a share of the total allowable emissions based on an adopted allocation scheme. A source's emissions may not exceed its individual cap.

The trading program provides sources with flexibility in meeting their emission caps. It is predicated on a difference in the cost of reductions for different sources. In a trading program, sources with lower reduction costs may choose to reduce their emissions below the required levels and trade the "excess" reductions to sources with higher costs. Sources with higher reduction costs may choose to purchase excess reductions in the amount needed to meet their cap, rather than making the necessary reductions at their facility. The net result is that the total emission reductions needed to meet the cap are achieved at the least cost. Trading is allowed across sectors; however, no more than half of a source's emission reductions may be achieved through cross-sector trading. For the purposes of the trading program, two broad sectors are established and defined on the following page.

The banking provision allows sources to earn and save credits for reductions beyond those required by the cap. It also allows for reductions made in advance of mandatory requirements. Sources would be able to use or trade these credits in the future. Banking thereby provides incentives to achieve "excess" and early reductions in emissions. It also provides additional flexibility to sources by providing them a longer time frame within which to make reductions.

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This enables them to choose control strategies that address multiple pollutants although the pollutant reduction requirements are on different time schedules. Banking also lets participants take advantage of green marketing and public relation opportunities and can help jump start the market for control technologies.

Sources have the option of achieving up to a quarter of their required emission reductions through offset projects between 2005 and 2009 and up to 15% of their required emissions between 2010 and 2014. Offset projects are projects that reduce mercury emissions from non-affected sources (i.e., sources not subject to the mercury cap).

Elements of the mercury cap, trading, & banking & offset program

1. **AFFECTED SOURCES:** Affected sources included under the mercury cap are those meeting any one of the following definitions:
 - a. fossil fuel-fired boilers greater than 1.0 mmBTU/hr used to generate electricity;
 - b. coal fired boilers greater than 1.0 mmBTU/hr used for non-electric generating purposes;
 - c. oil fired boilers greater than 5.0 mmBTU/hr used for non-electric generating purposes,
 - d. refused derived fuel fired boilers combusting more than 1500 tons per year;
 - e. municipal waste combustors with design capacities greater than 400 lbs waste/hour;
 - f. medical waste combustors with design capacities greater than 50 lbs waste/hour;
 - g. pathological waste combustors with design capacities greater than 750 lbs waste/hour;
 - h. wastewater sludge incinerators processing more than 5000 tons/year; or
 - i. manufacturing processes emitting greater than 10 lbs Hg/year.

A source is defined as a single emissions unit capable of emitting mercury.

A cap is defined as pounds of mercury emissions allowed in a given year.

The energy production sector includes all sources meeting definitions (a) through (d).

The purposeful use sector includes all sources meeting definitions (e) through (i).

2. **BASELINE DETERMINATION:** The baseline, from which total and individual source annual mercury emission caps would be calculated, will be the average annual emissions of mercury over the three year period preceding establishment of the mercury cap program.
3. **ALLOWANCES:** Each source will be allocated allowances equal to its proportionate share of the baseline. In 2005, each source will receive 20% fewer allowances; in 2010, 35% fewer;

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and in 2015, 50% fewer allowances.

An allowance is defined as 10 pounds of mercury emissions allocated to a source.

4. TRADING SYSTEM:

- a. All affected sources may trade allowances with each other, similar to the Sulfur Dioxide Trading System. A source whose emissions exceed its cap may obtain additional allowances from another source so that its total allowances equal its actual emissions. However, no more than half of a source's emission reductions may be achieved through cross-sector trading. For the purposes of the trading program, two broad sectors are established: the energy production sector and the purposeful use sector.
- b. Sources subject to mercury emission standards (e.g. Sections 112 or 129 of the Clean Air Act) prior to the effective date of the cap and trade program may trade allowances only for emissions or emission reductions beyond those required to meet the federal emission standard.
- c. Sources not under the cap may earn credits and participate in the trading system if they meet the following requirements.
 - 1) Emission reductions are adequately quantified and documented.
 - 2) Emission reductions are equal to at least one allowance. (Emission reductions from a number of smaller sources may be aggregated to meet the minimum threshold level for trading)

5. BANKING AND EARLY REDUCTIONS:

- a. Banking: Allocated allowances in excess of those needed to meet the emission reduction targets of 20%, 35% and 50% may be placed in an account. These allowances have an unlimited life and may be traded or used in the future.
- b. Early Reductions: Reductions in mercury emissions made at a source after the baseline is set and prior to 2005, and in excess of 20% in years 2005 through 2009, and in excess of 35% in years 2010 through 2014, may be accumulated in an account as credits. These credits have an unlimited life and may be traded or used in the future.

6. REDUCING MERCURY EMISSIONS THROUGH OFFSET PROJECTS:

- a. Sources may achieve a portion of their required emission reductions through offset projects. Between 2005 and 2009, sources may achieve up to a quarter of their required reductions through offset projects. Between 2010 and 2014, up to fifteen percent. In

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2015 and thereafter, offset projects may not be used to achieve the required emission reductions.

- b. There are two alternative ways to carry out offset projects.
 - 1) A source may implement projects directly or through a third party, or
 - 2) A source may use the monetary path and pay a specified amount per pound of mercury to the Mercury Reduction Fund.
 - c. An offset is defined as an action to reduce mercury emissions from non-affected sources (i.e., sources not under the mercury cap). Examples include mercury collection, reclamation and long-term storage or disposal programs.
 - d. Source-sponsored projects. A source may propose offset projects to the Department. The Department will evaluate proposed projects to determine the quantity of mercury reductions that are reasonably likely to occur. In doing so, the Department will consider the certainty that the offsets will be achieved, the ability to determine the actual reductions achieved based on the source's proposed evaluation process, and the extent to which the reductions would have occurred in the absence of the project.
 - e. Monetary Path. Sources may elect to pay a specified amount to the Mercury Reduction Fund. The amount per pound of mercury will be established through administrative rule taking into consideration the cost of offset projects.
7. **MONITORING, MEASUREMENT, VERIFICATION:** The protocols for monitoring, measurement and verification will be developed through the administrative rule process.
8. **PENALTIES:** Sources whose emissions exceed their cap and who have not secured sufficient allowances to offset the excess emissions will be penalized through a reduction of allocated allowances in the following year. The reduction shall be at the rate of 3 to 1 (i.e., three fewer allowances for each allowance of exceeded emissions).
9. **LONG TERM STORAGE OR DISPOSAL:** Sources must demonstrate to the Department that the mercury they remove from use will not be re-emitted into the atmosphere.

MERCURY TOTAL MAXIMUM DAILY LOAD

Section 303(d) of the Clean Water Act requires the Department to establish Total Maximum Daily Loads (TMDLs) for water bodies in the state impaired by the deposition of mercury from the atmosphere. Establishing individual TMDLs for each impaired water body is extremely difficult because a particular water body may be affected by atmospheric mercury deposited by sources on a local, regional and global scale. Ideally, TMDLs should be established based on a larger regional scale that includes an area approximately the size of 3-5 states. The reason for

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establishing a larger regional TMDL is because mercury can travel long distances in the atmosphere and be deposited many miles away. To meet Section 303(d) requirements, the Department is working with US EPA to establish a regional or “state-wide” TMDL that can be applied to all water bodies in the state impaired by atmospheric mercury. This “state-wide” TMDL will be one of the major elements in the re-assessment of the emission reduction goals that will be performed in 2005.

Establishing a TMDL requires resource management tools including atmospheric monitoring, emissions inventory development, and deposition modeling.

Elements of a Regional Mercury TMDL

1. **ATMOSPHERIC MONITORING:** To provide information in determining the existing mercury loading to a region and associated water bodies, it is necessary to have an adequate number of strategically located monitoring sites that have collected data for a sufficient amount of time. This data is used to verify the results of regional deposition models that estimate the amount of mercury being deposited from various sources. Atmospheric monitoring data is also necessary to determine and document any reduced mercury loading to the region as a result of mercury emission reductions. Three national Mercury Deposition Network monitoring sites have existed in northern Wisconsin since mid-1995. However, funding for these sites is in jeopardy and a new funding arrangement is needed to continue their operation.
2. **EMISSIONS INVENTORY:** The Great Lakes States with assistance from the Great Lakes Commission and US EPA have developed a regional toxic emissions inventory. To compile the data on toxic emissions, a software program called RAPIDS was developed. This software has the tools needed to compile the necessary mercury emissions data for input into a regional deposition model. However, existing inventory data for mercury is not speciated. It is important to have information on the speciation of mercury because the different forms of mercury are differentially transported and deposited. Mercury speciation of stack gases from major sources will need to be accomplished.
3. **DEPOSITION MODELING:** Deposition models such as US EPA’s RELMAP (Regional Lagrangian Model of Air Pollution) are available and have been used to determine mercury deposition on a regional scale. A version of RELMAP was used by US EPA to assess mercury deposition in the northeastern United States and southeastern Canada. The model was developed to handle three species of mercury: elemental vapor; divalent vapor; and particulate mercury. It can provide information on the percentage of deposition attributable to sources within the region (or within the state) and the percentage attributable to sources outside the region including deposition from the global reservoir. The model can also estimate the deposition of emissions from a single source. In addition, models are being developed by other researchers to assess mercury fate and transport to the Great Lakes.

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4. **TMDL PILOT PROJECTS:** The US EPA is conducting two mercury TMDL air deposition pilot projects in the country. One of the pilot projects is being conducted at Devil's Lake, Wisconsin in cooperation with the Department of Natural Resources. The goals of the project include identifying how much deposition comes from local and distant sources and assessing how federal and state air and water programs can work together in reducing mercury contamination of water. EPA expects to complete the project in about a year.

MERCURY REDUCTION FUND

Reducing the atmospheric deposition of mercury to levels that are protective of human health and the environment is a complex task. It includes reducing emissions from different sources including large sources and numerous small sources. There is also the need to further advance scientific understanding of mercury cycling in the environment.

The mercury cap, trade and bank program targets sources emitting about 86% of emissions into the atmosphere. The remaining 14% are emitted by numerous small sources such as laboratory and dental use, electric lamp and mercury switch breakage, residential furnaces, and mobile sources (See Table 1). Reducing emissions from these sources will require different approaches, such as collection and recycling programs and product substitution (i.e., using alternatives to mercury). Public education and outreach will be needed including the possible use of economic incentives.

Research to better understand mercury transport and the mercury cycle, including the relative contribution of local versus regional emissions to atmospheric deposition, will help direct future reduction strategies at the state, regional, national and even international levels. At the state level, this information is needed for the "check" phase of the mercury cap, trading and banking program.

The issue of long term storage of mercury must be addressed. Recycling programs provide a transitional solution and reduce the amount of new mercury entering the mercury cycle. Alternatives that take mercury out of the cycle in such a way that it is not re-emitted or re-discharged are needed to achieve the goal of real reductions of mercury to the environment.

A Mercury Reduction Fund will help move us forward on these issues.

Elements of the Mercury Reduction Fund

1. **FUND ACTIVITIES:** The Mercury Reduction Fund will support the following activities:
 - a. Activities to reduce emissions from smaller sources. Examples include recycling and collection programs and public education to reduce use of mercury containing products.
 - b. Activities to advance the scientific understanding of mercury emissions, their transport

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and their effect on the environment, including the relative contributions to atmospheric deposition of local emissions, regional emissions and the global reservoir.

- c. Activities to monitor and evaluate the mercury cap program and adjust reduction goals if appropriate.
 - d. Activities to develop a program for the long-term storage or disposal of mercury to prevent re-admission into the environment.
2. **ADMINISTRATION OF THE FUND:** An independent advisory board will be appointed to administer the Fund. It will include representatives from the major stakeholder groups: capped emission sources, area emission sources, environmental community and others. The Board will make funding decisions and report to the Department of Natural Resources.
 3. **SOURCE OF FUNDS:** One source of funds is the Offset Provision in the Mercury Cap and Trade Program. The state, acting as a representative of its citizens, should also provide some of the money for the Mercury Reduction Fund. Additional monies could be provided through one or more alternative means:
 - a. Public Benefit Fund (this fund is under discussion as part of the Utility Restructuring Process);
 - b. Surcharge applied to mercury sources which do not have to initially control emissions;
 - c. State funds, in addition to the seed money;
 - d. Other sources.

REGIONAL AND NATIONAL ACTION

Because mercury has an important transboundary component, coordinated efforts on a regional, national and international scale must supplement state efforts to solve the mercury problem.

Our neighboring states of Michigan and Minnesota have a strong interest in moving forward to reduce the mercury entering their water bodies. Both states have active stakeholder forums addressing strategic issues regarding mercury reductions. A cooperative regional effort would benefit all three states.

A Midwestern/Great Lakes States regional voice would carry significantly more weight at the national level than that of a single state. Moreover, it offers the opportunity to form alliances with other regional initiatives, such as the Conference of New England Governors and Eastern Canadian Premiers, to promote and advocate for national programs.

Elements of a Regional/National Initiative

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1. Wisconsin will convene a Roundtable Meeting of high level public, private and non-profit environmental officials from the states of Wisconsin, Minnesota and Michigan to explore interest in and options for developing a Regional Mercury Reduction Action Plan.
2. Wisconsin will explore the possibility of a workshop/conference sponsored by groups such as the National Governors Association and the Environmental Council of States, to raise national awareness of the environmental, public health and economic consequences of mercury transport and deposition. This workshop/conference would address actions needed to reduce mercury emissions on a national level.
3. Wisconsin will advocate that EPA adopt a state or multi-state approach to determining Total Maximum Daily Loads (TMDLs) for mercury contaminated water bodies, rather than individual TMDLs for each impaired water body.
4. Wisconsin will call for a national ban on the export of mercury out of the country. This would preclude the possibility of simply transferring to other nations the mercury taken out of the United States' mercury stream.